## Introduction

For decades economists have attempted to explain the decline of the share of the U.S. consumer food dollar allocated to farmers. A factor contributing to this decline is the increase in consumer demand for off-farm or marketing services for food. That is, as consumers demand more marketing services in the form of greater convenience or processing, the farm value share declines. Historically, a number of researchers have documented the importance of the demand for marketing services. For example, Bunkers and Cochrane (1957) and Waldorf (1966) find that increases in the demand for marketing services for all food account for a large share of the decline in the farm value share.

Declining farm shares are often reflected in rising retail-farm price margins. USDA's Economic Research Service (ERS) publishes estimates of retail-farm price margins based on fixed farm proportions. These estimates cannot link consumers' increased demand for marketing services (Kinsey and Senauer, 1996) to retail-to-farm price margins that rise faster than retail food prices. While ERS periodically updates its fixed weights and makes other adjustments to reflect

changes in the "quality" of consumer food products, these changes lag actual changes in quality and may lead to serious biases in true retail-farm price margins.<sup>2</sup>

In this study, we compare USDA's current estimates with efficiency-based measures of retail-farm price margins that pertain to markets with diverse firms and diverse food products.

Conceptually, different products represent different bundles of farm and marketing services, and the new estimates computed below represent the value of marketing services associated with a composite market's mix of products. The new estimates can be used to show that growing consumer demand for marketing-service-intensive products translates into declining farm shares and rising retail-farm price spreads.

The rising spreads and declining farm shares that have been observed over the past decade have often been attributable to imperfectly competitive food markets. However, our estimates illustrate that such patterns are also consistent with a competitive industry characterized by diversity. The procedures presented below should not only yield more accurate estimates of price margins but should also allow the computation of these values more directly and effortlessly.

<sup>&</sup>lt;sup>1</sup>In particular, ERS publishes two related estimates of price spreads. First, price spreads computed for individual categories of the market basket are based on fixed farm product equivalent ratios and estimates of average annual quantities of food purchased per household in a given base period (currently 1982-84). Second, price spreads computed for selected individual groups of food products (beef and pork) are simply the difference between a retail price and a retail-equivalent farm value assuming a fixed farm product equivalent ratio.

<sup>&</sup>lt;sup>2</sup>This problem is analogous to the issue of whether consumer price index numbers, which are based on fixed quantities, accurately reflect changes in the true cost of living of consumers.